In the Claims

1.   (Currently amended) A communications system comprising:

a mobile unit operable to monitor signals received from a plurality of base transceiver stations, to choose one of the base transceiver stations based on the signals, and to request communications from the chosen base transceiver station;

a gateway operable to receive a first packet addressed to the mobile unit, to determine a multicast address associated with the mobile unit, to generate a second packet having information from the first packet and addressed to the multicast address, and to communicate the second packet to a packet network, wherein the gateway generates the second packet by readdressing the first packet to the multicast address; and

the base transceiver stations, each base transceiver station operable to receive the second packet from the packet network, the chosen base transceiver station operable to communicate information from the second packet to the mobile unit by readdressing the second packet to the mobile unit.

2.   (Original) The communications system of Claim 1, wherein the signals monitored by the mobile unit comprise pilot signals transmitted by the base transceiver stations.

3.   (Original) The system of Claim 1, wherein the mobile unit and the base transceiver stations implement High Data Rate (HDR) wireless communications protocols.

4.   (Canceled)

5.   (Currently amended) ~~The system of Claim 1,~~ A communications system comprising:

a mobile unit operable to monitor signals received from a plurality of base transceiver stations, to choose one of the base transceiver stations based on the signals, and to request communications from the chosen base transceiver station;

a gateway operable to receive a first packet addressed to the mobile unit, to determine a multicast address associated with the mobile unit, to generate a second packet having information from the first packet and addressed to the multicast, and to communicate the second packet to a packet network, wherein the gateway is further operable to generate the second packet by encapsulating the first packet as a payload for the second ~~packet, and~~ packet; and

the base transceiver stations, each base transceiver station operable to receive the second packet from the packet network, the chosen base transceiver station operable to extract ~~extracts~~ the first packet from the second packet and to communicate ~~communicates~~ information from the second packet to the mobile unit by transmitting the first packet to the mobile unit.

6.   (Currently amended) The system of Claim 1, further comprising a roam management module operable to:

monitor wireless links between the mobile unit and the base transceiver stations;

determine that radio link quality for the one of the wireless ~~link~~ links between a selected one of the base transceiver stations and the mobile unit has fallen below a threshold; and

withdraw the selected base transceiver station from a multicast group associated with the mobile unit.

7.   (Currently amended) The system of Claim 6, wherein the roam management module determines that radio link quality for the one of the wireless ~~link~~ links between the selected base transceiver station and the mobile unit has fallen below ~~a~~ the threshold by determining that a signal strength has fallen below the threshold for a predetermined period of time.

8.   (Original) The system of Claim 1, further comprising a roam management module operable to:

monitor radio link quality for wireless links between the mobile unit and the base transceiver stations;

determine that radio link quality for the wireless link between a selected one of the base transceiver stations and the mobile unit has exceeded a threshold; and

register the selected base transceiver station with a multicast group associated with the mobile unit.

9.   (Currently amended) A base transceiver station comprising:

a wireless network interface operable to receive a multicast packet from a packet network, wherein the base transceiver station is a member of a multicast group receiving the multicast packet;

a processor operable to determine a mobile unit identified by the multicast packet and to determine whether the mobile unit has chosen the base transceiver station for communications, wherein the processor is further operable to extract a packet encapsulated in the multicast packet; and

the wireless network interface operable to communicate information from the multicast packet to the mobile unit by transmitting the extracted packet to the mobile unit if the mobile unit has selected the base transceiver station for communications.

10.   (Original) The base transceiver station of Claim 9, wherein the wireless interface is further operable to transmit a pilot signal for reception by the mobile unit.

11.   (Original) The base transceiver station of Claim 9, wherein the wireless interface communicates using High Data Rate (HDR) wireless communications protocols.

12.   (Canceled)

13.   (Currently amended) ~~The base transceiver station of Claim 9,~~ A base transceiver station comprising:

a wireless network interface operable to receive a multicast packet from a packet network, wherein the base transceiver station is a member of a multicast group receiving the multicast packet;

a processor operable to determine a mobile unit identified by the multicast packet and to determine whether the mobile unit has chosen the base transceiver station for communications, wherein the processor is further operable to readdress the multicast packet to an Internet protocol (IP) address for the mobile unit; and

the wireless network interface operable to communicate information from the multicast packet to the mobile unit if the mobile unit has selected the base transceiver station for communications.

14.   (Currently amended) The base transceiver station of Claim 9, wherein the processor is further operable to discard the multicast packet if the mobile unit has chosen a second base transceiver station for the communications.

15.   (Original) The base transceiver station of Claim 9, wherein the processor is further operable to monitor radio link quality for a wireless link with the mobile unit and to withdraw from the multicast group based on the radio link quality.

16.   (Currently amended) The base transceiver station of Claim 9, wherein the processor is further operable to monitor radio link qualities for wireless links with a plurality of mobile units and to register for a multicast group associated with a selected one of the mobile units based on the radio link quality of ~~the~~ a wireless link with the selected mobile unit.

17. (Currently amended) A method for processing a multicast packet comprising:

determining whether a mobile unit has requested to receive communications from a base transceiver station, wherein the base transceiver station is a member of a multicast group associated with the mobile unit;

receiving a multicast packet for the multicast group; and

if the mobile unit has requested to receive communications, communicating information from the multicast packet to the mobile unit, wherein communicating information to the mobile unit comprises a selected one of (a) extracting a packet encapsulated in the multicast packet and communicating the extracted packet to the mobile unit and (b) re-addressing the multicast packet to an Internet protocol (IP) address for the mobile unit.

18. (Original) The method of Claim 17, further comprising transmitting a pilot signal from the base transceiver station for reception by the mobile unit.

19. (Original) The method of Claim 17, wherein the base transceiver station and the mobile unit implement High Data Rate (HDR) wireless communications protocols.

20. (Canceled)

21. (Canceled)

22. (Original) The method of Claim 17, further comprising discarding the multicast packet if the mobile unit has not requested to receive communications from the base transceiver station.

23. (Original) The method of Claim 17, further comprising monitoring radio link quality for a wireless link with the mobile unit and withdrawing from the multicast group associated with the mobile unit based on the radio link quality.

24.   (Original) The method of Claim 17, further comprising monitoring radio link qualities for wireless links with a plurality of mobile units and registering for a multicast group associated with a selected one of the mobile units based on the radio link quality for the wireless link with the selected mobile unit.

25.   (Currently amended) Software for processing a multicast packet comprising, the software embodied on a computer readable medium and operable to:
        determine whether a mobile unit has requested to receive communications from a base transceiver station, wherein the base transceiver station is a member of a multicast group associated with the mobile unit;
        receive a the multicast packet for the multicast group; and
        if the mobile unit has requested to receive communications, communicating information from the multicast packet to the mobile unit, wherein communicating information to the mobile unit comprises a selected one of (a) extracting a packet encapsulated in the multicast packet and communicating the extracted packet to the mobile unit and (b) re-addressing the multicast packet to an Internet protocol (IP) address for the mobile unit.

26.   (Original) The software of Claim 25, further operable to transmit a pilot signal from the base transceiver station for reception by the mobile unit.

27.   (Original) The software of Claim 25, wherein the base transceiver station and the mobile unit implement High Data Rate (HDR) wireless communications protocols.

28.   (Canceled)

29.   (Canceled)

30.   (Original) The software of Claim 25, further operable to discard the multicast packet if the mobile unit has not requested to receive communications from the base transceiver station.

31.   (Original) The software of Claim 25, further operable to monitor radio link quality for a wireless link with the mobile unit and to withdraw from the multicast group associated with the mobile unit based on the radio link quality.

32.   (Currently amended) The software of Claim 25, further operable to monitor radio link qualities for wireless links with a plurality of mobile units and to register for a multicast group associated with a selected one of the mobile units based on ~~the~~ radio link quality for ~~the~~ a_ wireless link with the selected mobile unit.

33.   (Currently amended) A base transceiver station comprising:

means for determining whether a mobile unit has requested to receive communications from the base transceiver station, wherein the base transceiver station is a member of a multicast group associated with the mobile unit;

means for receiving a multicast packet for the multicast group; and

means for, if the mobile unit has requested to receive communications, communicating information from the multicast packet to the mobile unit, wherein communicating information to the mobile unit comprises a selected one of (a) extracting a packet encapsulated in the multicast packet and communicating the extracted packet to the mobile unit and (b) re-addressing the multicast packet to an Internet protocol (IP) address for the mobile unit.

34.   (Original) The base transceiver station of Claim 33, further comprising means for transmitting a pilot signal for reception by the mobile unit.

35.   (Original) The base transceiver station of Claim 33, further comprising means for implementing High Data Rate (HDR) wireless communications protocols.

36.   (Canceled)

37.   (Canceled)

38.   (Original) The base transceiver station of Claim 33, further comprising means for discarding the multicast packet if the mobile unit has not requested to receive communications from the base transceiver station.

39.   (Original) The base transceiver station of Claim 33, further comprising monitoring radio link quality for a wireless link with the mobile unit and means for withdrawing from the multicast group associated with the mobile unit based on the radio link quality.

40.   (Currently amended) The base transceiver station of Claim 33, further comprising means for monitoring radio link qualities for wireless links with a plurality of mobile units and means for registering for a multicast group associated with a selected one of the mobile units based on the radio link quality for the a wireless link with the selected mobile unit.